



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,054	04/05/2007	Tadashi Fujii	FUJII9	4828
1444 7590 03/25/2009 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303				
EXAMINER				
ROYSTON, ELIZABETH				
ART UNIT		PAPER NUMBER		
4122				
MAIL DATE		DELIVERY MODE		
03/25/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/591,054

**Applicant(s)**

FUJII ET AL.

**Examiner**

Elizabeth S. Royston

**Art Unit**

4122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/02)  
Paper No(s)/Mail Date 8/30/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-6 in the reply filed on 3/12/2009 is acknowledged.

Examiner agrees with applicant that insufficient discussion was made with regards to the special technical feature. However, Wenz (US PN 4731004) in view of Scheibling (US PN 3611492) demonstrates a lack of an inventive step concerning the special technical feature claimed by applicant (for further detail see the rejection of claim 1 over 35 USC 103). The requirement is still deemed proper and is therefore made FINAL.

2. Claims 7-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Specification***

1. The abstract of the disclosure is objected to because the length exceeds 150 words. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: Sections specifically referencing the claims contain grammatical errors. For details see the rejections under 35 USC 112 below.

Appropriate correction is required.

***Claim Objections***

3. Claims 1, 2, 4, and 5 are objected to because of the following informalities:

Claim 1: for continuity, "another thermoplastic resin" should read as "the other thermoplastic resin" in line 8;

Claim 2: "T-dye" should be spelled correctly as "T-die" in line 16;

Claim 4: for clarity, "... may form only a part..." might read as "may by itself form a part" in line 6;

Claim 5: for clarity, "... 3000 poises at a shear rate of from..." might read as "... 3000 poise at a 20 to 500s<sup>-1</sup> shear rate..." in line 5, poises should read as poise in line 5.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1: the term "them" in line 6 is indefinite, the terms "they" in lines 12 and 15 are indefinite; For the purposes of examination against the prior art, each 'them' or 'they' has been construed to refer to the last stated element.

Claim 2: the term "these" in line 13 is indefinite. For the purposes of examination against the prior art, 'these' has been construed to refer to the last stated element.

Further regarding claim 2, the limitation "multilayered thermoplastic resins" in line 18 lacks antecedent basis;

Claim 3: the limitation "claim 1" in line 2 lacks antecedent basis and has been construed as "claim 2";

Claim 4: the term "inevitably" in line 7 is indefinite as it is unclear how the part is becoming thicker over time. For the purposes of examination against the prior art, that section of the film was construed to be thicker than the body of the film.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenz (US PN 4731004), which incorporates by reference Corbett (US PN 3398431) and Chisholm (US PN 3557265), in view of Scheibling (US PN 3611492).

With regard to claim 1, Wenz teaches a process for producing a multilayered unstretched film wherein plural thermoplastic resins and the other thermoplastic resin are separately heated and melted, the other thermoplastic resin is led to both sides of the plural thermoplastic resins just before the resins are widened in their manifold (Wenz:

figure 12; col. 8, line 32-36), then the plural and other thermoplastic resins are fed to the manifold so that the other thermoplastic resin (Wenz: figure 14, item A1, A2, C1, and C2) coexists on both sides of the plural thermoplastic resins (Wenz: figure 14; item B1 and B2) which are then widened and combined (Wenz: col. 8, line 41-45; Chisholm: figure 1) and extruded onto a casting roll (Wenz: col. 1, line 26-28). The edges of a second thermoplastic material can then be cut off (Corbett: figure 7, item 109, 110; figure 8, item 111, 112; figure 9, item 105-107; col. 4, line 56-61).

Wenz does not specifically disclose multiple manifolds or T-die lips.

Scheibling discloses the use of multiple manifolds (figure 2, item 5-8) and T-die lips (figure 3, item 23, 24) in the process of making multilayered thermoplastic films.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multiple manifolds or T-die lips taught by Scheibling to create multilayered thermoplastic films as taught by Wenz. The rationale to do so is the motivation provided by the teaching of Scheibling, that the lips allow for predictable control of the layer thickness (col. 3, line 7-17) and the multiple manifolds allow for independent control of the layers (col. 3, line 22-25).

With regard to claim 2, Wenz teaches different extruders (Chisholm: figure 1, item 11, 12) with resin melt supply ducts (Chisholm: figure 1, item 15, 16). Wenz also teaches multiple inlet channels to the feed blocks leading from the extruders (Wenz: col. 8, line 32-33), where holes are formed on both sides of the lower part of the respective ducts for the plural thermoplastic resins (Wenz: figure 12, inlet channels defined by item 102/104 and 102/106).

With regard to claim 3, Wenz teaches rectangular supply ducts and holes (Wenz: col. 3, line 4-7; figure 9a, item 62, 64, 66, and 68).

With regard to claim 5, Wenz teaches the use of thermoplastic polymers, specifically different types of low density polyethylene (col. 8, line 58-60; col. 9, line 55). Although Wenz does not specifically disclose the use of thermoplastic resins with melt viscosities differing by at most 3000 poise at a 20 to 500 s<sup>-1</sup> shear rate, any successful layer formation would necessitate the melt viscosities of the resins to be within that range.

With regard to claim 6, Wenz teaches an opaque resin colored with titanium dioxide (Wenz: col. 9, line 37-40).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wenz (US PN 4731004), which incorporates by reference Corbett (US PN 3398431) and Chisholm (US PN 3557265), in view of Peiffer (US PN 5716570).

The teachings of Wenz are detailed in the rejection of claims 1-3 and 6 under 35 USC 103(a) above.

With regard to claim 4, Wenz teaches that the widths of the other thermoplastic resin materials are variable (col. 3-4, line 65-69, 1-6).

Wenz does not specifically disclose the widths of materials A1, A2, C1, and C2 to account only for the thickening at the edges that occurs after extrusion.

Peiffer teaches edges comprising other thermoplastic resin which are cut off due to uneven layer thickness (figure 1, item Ai12, Aj12; col. 1, line 33-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the width of the other thermoplastic resin (A1, A2, C1, and C2) taught by Wenz to act as the disposable edges taught by Peiffer. The motivation to do so would have been found in the teaching of Peiffer in that the use of disposable edges for the thicker regions predictably reduces the economic losses due to non-recyclable trim waste (col. 2, line 2-4).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kunihara (JP 2003-291258): teaches a multilayer resin coating on a metal sheet.

Van Dover (US PN 4315878): teaches a multiple manifold system with convergence of layers within the die, and cutting of the extruded film.

Cloren (US PN 4600550): teaches a multiple manifold system with convergence of layers within the die.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth S. Royston whose telephone number is 571-270-7654. The examiner can normally be reached on M-Th 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ER/  
Patent Examiner, GAU 4122

/Timothy J. Kugel/  
Primary Examiner, Art Unit 1796